SPERM QUALITY AND MORPHOMETRY FROM PESISIR BULL AT BPTU-HPT (SUPERIOR LIVESTOCK BREEDING AND ANIMAL FEED CENTER) IN PADANG MENGATAS

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ABSTRACT

The purpose of this study is to assess the sperm quality and morphometry of the Pesisir bull which were the original Indonesian cattle according to the Indonesian Minister of Agriculture number 2908/Kpts/Ot.140/6/2011 as the basic data, until now has never been reported. This research was a laboratory descriptive study. Semen was collected from 3 Pesisir bull using an artificial vagina then were evaluated macroscopically (volume, colour, smell, pH and consistency) and microscopically (mass aactivity, initial motility, viability, abnormality and concentration) also were observed the morphometry of sperm. The result showed that macroscopic test these were volume 4.8±0.2 ml, colour semen was cream, a neutral smell, pH 6.5±0.0 and consistency was medium and viscous. The result showed that microscopic test were mass activity (++) and (+++), initial motility 53.3±7.6%, viability 88±9.1%, abnormality 6.6±3.7% and concentration 1192.3±331.6×(10^6). Sperm morphometry were measured by trinocular microscope with micrometer scale and the result were head length and head width were 9.40 ± 0.08 µm and 5.02 ± 0.25 µm, head perimeter 24.43 ± 0.53 µm, middle piece and principal piece length were 14.22 ± 0.30 µm and 46.13 ± 0.60 µm, total tail length and total length of sperm were 60.34 ± 0.79 µm and 69.95 ± 0.77 µm. These results are no significant differences in morphometry with some local cattle in Indonesia such as Bali cattle, Aceh cattle and Rambon cattle.

Keywords: Indonesian cattle, Pesisir bull, spermatozoa, quality test, morphometry